Phasor measurement unit (PMU)

A phasor measurement unit (PMU) is a system that uses a standard time source for synchronization to estimate the magnitude and phase angle of an electrical phasor quantity (such as voltage or current) in the electricity grid. GPS or the IEEE 1588 Precision Time Protocol, which allows synchronized real-time measurements of several remote points on the grid, typically provides time synchronization. Phasor measurement units can quickly capture samples from a waveform and recreate the phasor quantity, which is comprised of an angle measurement and a magnitude measurement. A synchrophasor is the calculation that results.

Phasor Measurement Unit Applications

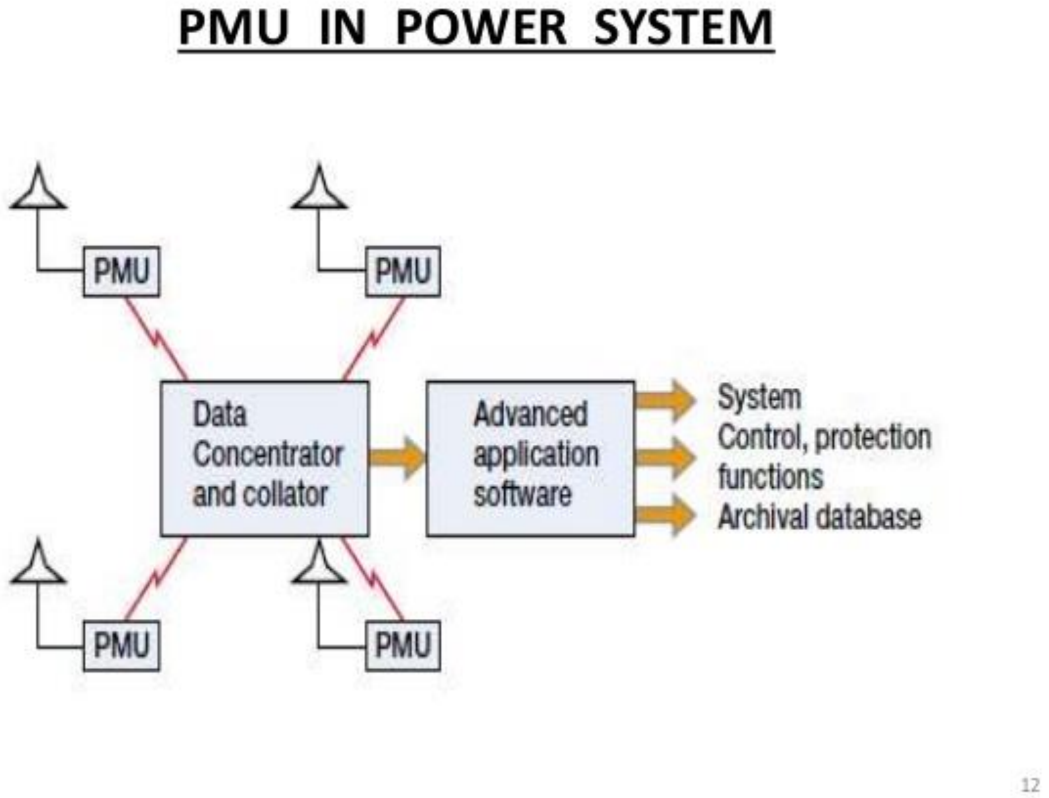
1. Power system real time monitoring.

2. Advance network protection

3. Advance control schemes

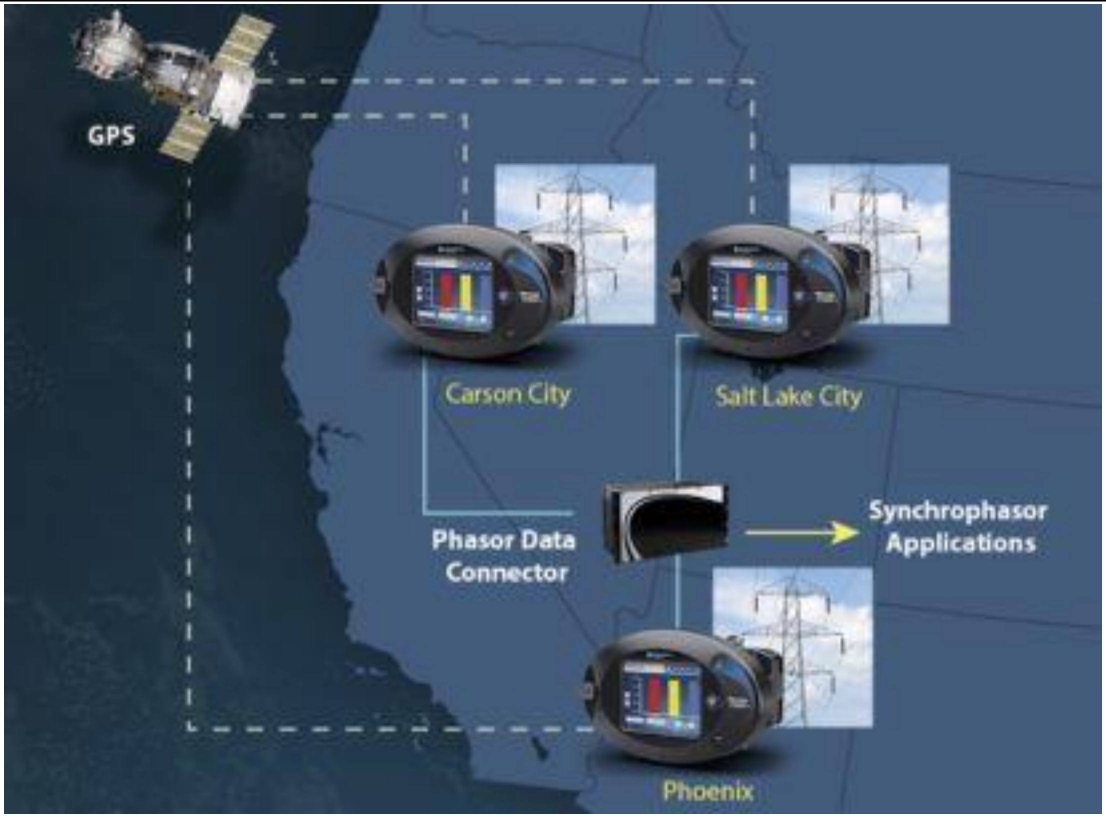
4. Wide area measurement and control

5. Power system automation



PMU IN POWER SYSTEM

PMU
PMU
Data Concentrator and collator
Advanced application software
System
Control, protection functions
Archival database
PMU
PMU
12



6. Post disturbance analyses of power system

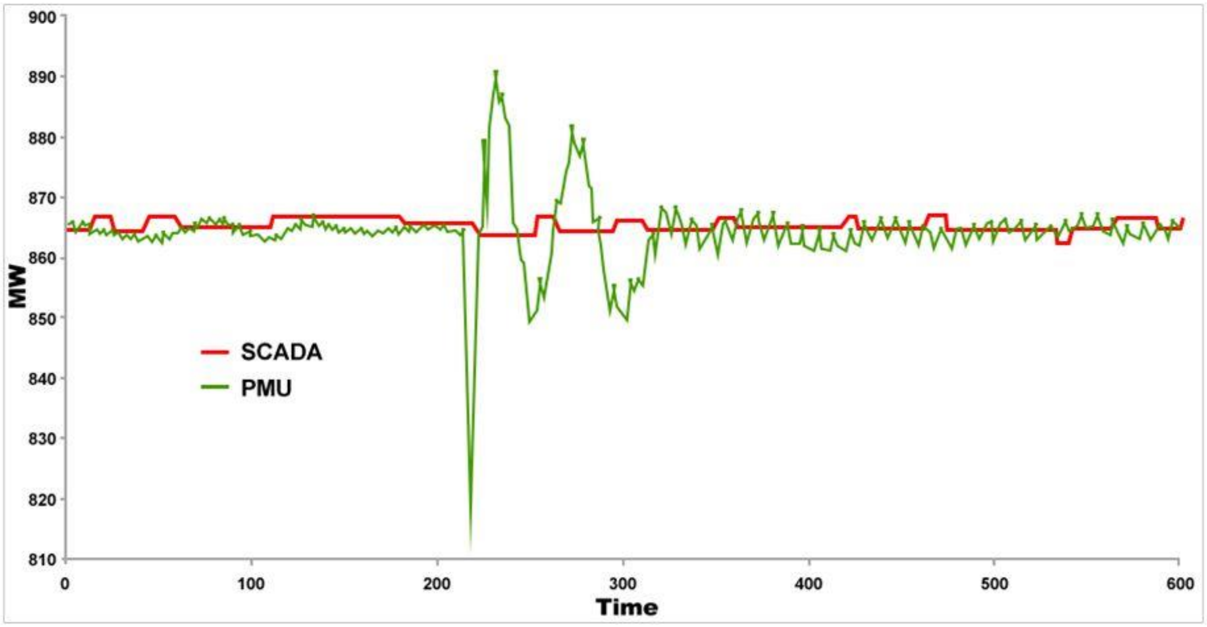
7. Improve control

8. Fault recording

9. Fault location

10. Instability prediction

Phasor Measurement Unit (PMU) Benefits



- Boost device operators' situational awareness by providing better insight into complex grid conditions.

- Determine the electric power system's stress points.

- After a storm or significant outage disruption, detect and assist in the restoration of an islanded portion of the grid.

- Real-time measurements include early detection warnings that SCADA systems neglect.

Phasor Measurement Unit (PMU) and a Synchrophasor
Electro Industries/GaugeTech
Powered by Innovation
MW
SCADA
PMU
Bargraph
Nexus
1500+

Electro Industries are a leading power metering and cloud management provider with a long experience in this field. They have their products widespread in 207 countries and 5 countries. You can get power metering solutions for your business which is equipped with PMU, an abbreviation for **Phasor Measurement Unit**.